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New data on spiders and harvestmen (Arachnida: Aranei & Opiliones) from Western Koryakia, Kamchatka Peninsula

Новые данные о пауках и сенокосцах (Arachnida: Aranei & Opiliones) Западной Корякии, Камчатка

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КЛЮЧЕВЫЕ СЛОВА: Северо-Восток Азии, Дальний Восток, новая находка, Камчатский край.

ABSTRACT. Eighty-eight species of spiders and one species of harvestman are reported on from western Kamchatka. Eighty-five spider species and one Opiliones species are found in Koryakia for the first time. Among them, 31 species of spiders are new to Kamchatka Province; one of them, *Ozyptila gertschi*, is new to the far eastern Palaearctic. One species, *Oedothorax trilobatus*, which is well-known in the Nearctic, is new to Palaearctic. All interesting issues are commented upon. Three species *Asperthorax borealis, Oedothorax trilobatus* and *Ozyptila gertschi* are illustrated.

РЕЗЮМЕ. В западной Корякии, в окрестностях посёлка Тигиль отмечено 88 видов пауков и один вид сенокосца. Из них 85 видов пауков найдены в Корякии впервые, сенокосцы ранее не были известны в регионе. 31 вид пауков впервые зарегистрированы на Камчатке, из них *Ozyptila gertschi* впервые отмечается для Азии, а *Oedothorax trilobatus* впервые найден в Палеарктике. Приводятся список видов, все интресные находки прокомментированы. *Asperthorax borealis, Oedothorax trilobatus* и *Ozyptila gertschi* проиллюстрированны.

Introduction

Kamchatka is a poorly studied region in Eastern Palaearctic in respect of its spider fauna. Only some 190 species are known from there [Mikhailov, 1997, 2002]. For example, adjacent regions such as Sakhalin and Magadan have much more diverse fauna with 420 and 560 species, respectively [Marusik et al., 1992, 1993a]. More distant areas have also more diverse spider faunas ranging from 430 to 630 [Marusik, 2007]. Moreover, it is almost the only region east of Yenisei that has no check-list. It is evident that number of species in Kamchatka is much higher. Small number of reported species can be easily explained by lack of collected efforts during almost 70 years, and a corresponding lack of faunistic publications. The first publication about spiders of Kamchatka was published by Kulczyński [1885]. He reported over 130 species. The following three papers [Kulczyński, 1926; Schenkel, 1930; Sytshevskaja, 1935] added almost 70 species new to the fauna of peninsula. About two dozen species were reported in several taxonomic papers or faunistic publications dealing with whole Northern Asia [Marusik et al., 1992; Eskov & Marusik, 1994; Mikhailov & Marusik, 1995; Marsuik & Koponen, 2010, etc.]. At the same time few species were removed from the list because of synonymies or incorrect original identifications. Almost all species were reported from southeastern part of peninsula between Petropavlovsk-Kamchatski and Ust-Kamchatsk. Koryakia, a separate administrative unit within the Kamchatka Province, occupying northern and northwestern parts of Peninsula and adjacent territories, was almost entirely unknown. Only six species *Allomengea scopigera* (Grube, 1859), *Bathyphantes eumenis* (L. Koch, 1879), *B. gulkana* Ivie, 1969, *B. pogonias* Kulczyński, 1885, *Collinsia holmgreni* (Thorell, 1872) and *Tmeticus affinis* (Blackwall, 1855) have been reported from northwestern Koryakia in a check-list of northeastern Asia [Marusik et al., 1992]. Recently the second author had the opportunity to undertake an expedition to western Koryakia to collect beetles. During this expedition

he collected almost 650 specimens of spiders and harvestmen belonging to 89 morphospecies. 34 of them are new to Kamchatka and almost all species (except three species, *Allomengea scopigera, Bathyphantes eumenis* and *B. pogonias*) are new to Koryakia. One species collected in Koryakia is new to Palaearctic and one species is new to Asia. Goal of this paper is to present a new data about spiders of Kamchatka Province and Koryakia in particular.

Material and methods

All spiders were collected by the second author in environs of Tigil Village (ca. 57°46'N 158°40'E) in western Koryakia (Map 1). All material was collected either by sifting litter or hand picking in lowland habitats. Although total number of samples taken in the field was 23, we combined all of them into three groups according the type of habitats: 1) birch stands with *Pinus pumula* on south-east exposed slopes on low hills, 2) willow, and willow-alder stands on high river terrace and in river valley, and 3) boggy habitats. Few specimens were collected by hand picking or sweeping in several habitats. Pitfall traps we not used. Spiders were preserved in 75% alcohol. Material will be shared between the Zoological Museum of the Moscow State University and the Manchester Museum, University of Manchester, UK.

For all species new to Kamchatka and all unidentified specimens, we provide comments, and in three cases, references for most appropriate identification sources.

Specimens were photographed using an Olympus Camedia E-520 camera attached to an Olympus SZX16 stereomicroscope. The images were montaged using "CombineZM" image stacking software. Photographs were taken in dishes of different size with paraffin at the bottom. Different sized holes were made in the bottom to keep the specimens in the correct position.

Survey of species new to Kamchatka and unidentified species

ARANEIDAE

Araneus nordmanni (Thorell, 1870)

COMMENTS. This species is new to Kamchatka. It has a circum-Holarctic range and is known in the adjacent Magadan Area [Marusik et al., 1992], and most of North America [Levi, 1971; Dondale et al., 2003].

Araneus yukon Levi, 1971

COMMENTS. The species is new to Kamchatka. It has an East Siberian – northwestern Nearctic range and occurs from western Yakutia to south Yakutia [Marusik et al., 1993b], and north to Chaun Bay [Marusik et al., 1992]. In the Nearctic it was found in Alaska (personal data) and along western border of Yukon Territory [Dondale et al., 1997]. *A. yukon* is rather a common species in the adjacent Magadan Area. It is very likely that previous records of *A. quadratus* Clerk, 1757, from Kamchatka refer to this species.



Map 1. Kamchatka Peninsula. Collecting locality arrowed.

Карта 1. Полуостров Камчатка. Место сбора материала указано стрелкой.

GNAPHOSIDAE

Haplodrassus soerenseni (Strand, 1900)?

COMMENTS. The species is new to Kamchatka. It has trans-Palaearctic boreo-nemoral range [Marusik et al., 1996, 2000] and common in adjacent Magadan Area. Although identification of juvenile *Haplodrassus* specimens is almost impossible, we identified our specimens according to the size of subadult males and habitats. Other species occurring in adjacent Magadan Area are either larger or live in different habitats.

LINYPHIIDAE

Agyneta mollis (O. Pickard-Cambridge, 1871)

COMMENTS. This species in new to Kamchatka. It has a trans-Palaearctic–Alaskan range and is known in the adjacent Kuril Islands (personal data), although it is not known from the well- studied Magadan Area.

Agyneta aff. *trifurcata* Hippa et Oksala, 1985

COMMENTS. It is impossible to identify this species with certainty without males.

Agyneta sp.

COMMENTS. Female specimens from Tigil Village may belong either to *A. allosubtilis* Loksa, 1965 or *A. olivacea* (Emerton, 1882). Females of these two species are very similar. The former species was already reported from Kamchatka [Mikhailov, 1997], and *A. olivacea* is common species in the northeastern Asia.

Aphileta misera (O. Pickard-Cambridge, 1882)

COMMENTS. This species is new to Kamchatka. It has a circum-Holarctic range. In adjacent Magadan Area it is known from the coastal part [Marusik, 2005].

Asperthorax borealis Ono et Saito, 2001
Figs 1–2.

A. b. Ono & Saito, 2001: 163, f. 6–11 (♂♀).
A. b. Ono et al., 2009: 274, f. 183–188 (♂♀).
Comparative material examined: 2 ♂♂ 3 ♀♀, RUSSIA, Khabarovsk Prov., env. of Khabarovsk, Bychikha Vill., secondary forest, 11.09.2005 (Y.M. Marusik)

COMMENTS. This species is new to Kamchatka and our record represents the most northeastern locality of the species. *A. borealis* was known from Hokkaido and Moneron Islands and in the environs of Khabarovsk [Marusik et al., 2007c]. The new locality is separated from the nearest locality by about 1700 km. We compared specimens from Kamchatka and Khabarovsk and found no differences. It is worth mentioning that Ono & Saito [2001] in the original description mentioned presence of Tm IV. Trichobothrium on metatarsus IV on the specimen from Kamchatka and those from Khabarovsk is absent.

Ceraticellus bulbosus (Emerton, 1882)

COMMENTS. This species is new to Kamchatka. It has a circum-Holarctic range and known in Magadan Area.

Ceratinella sp. 1

COMMENTS. So far, only one species, *C. brevis* (Wider, 1834) has been reported from Kamchatka. Our specimens have a dorsal abdominal scutum and might belong to this species, but the lack of a male does not allow us to identify this species with certainty.

Ceratinella sp. 2

COMMENTS. We were not able to identify this species. Unlike other species, male collected in Tigil Village lacks dorsal abdominal scutum.

Hilaira devitata Eskov, 1987

COMMENTS. It is new to Kamchatka. This species has a Siberian boreal range and occurs from Evenkia east to Koryakia (the easternmost locality of the range) and southward to Amur River [Eskov, 1994].





Figs 1–2. Female *Asperthorax borealis*: 1 — habitus, dorsal; 2 — epigyne, ventral.

Рис. 1–2. Самка *Asperthorax borealis*: 1 — внешний вид, сверху; 2 — эпигина, снизу.

Hilaira sibirica Eskov, 1987

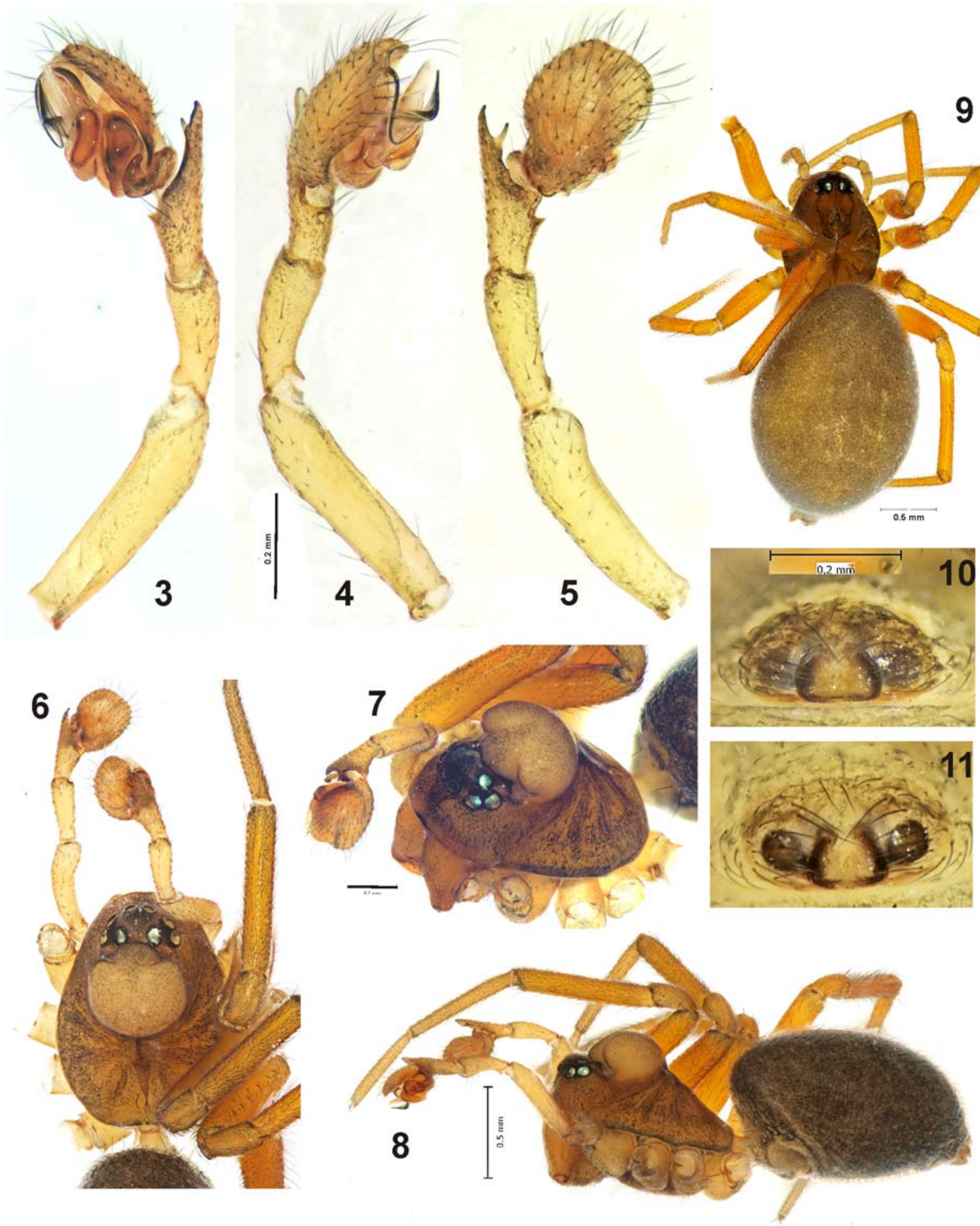
COMMENTS. This species is new to Kamchatka. It has a Siberio-Alaskan hypoarctic range and known from Putorana Plateau southward to north Tuva, northeast to Chukotka [Marusik et al., 1992; Eskov, 1994]. In the Nearctic, *H. sibirica* was recorded from Alaska and Yukon Territory only [Dondale et al., 1997].

Hybauchenidium gibbosum (Soerensen, 1898)

COMMENTS. This species is new to Kamchatka. It has a northeastern Siberian – trans-Nearctic boreo-hypoarctic range. In Asia it was known earlier from the Magadan Area only, where it is very common [Marusik et al., 1992; Marusik, 2005].

Hypselistes sp.

COMMENTS. It is impossible to identify of the basis of females what species occurs in Koryakia. Epigynes in two species, *H. jacksoni* (O. Pickard-Cambridge, 1902) and *H. kolymensis* Marusik & Leech, 1993, occurring in adjacent Magadan Area are identical.



Figs 3–11. Habitus and copulatory organs of *Oedothorax trilobatus*: 3–5 — male palp, retrolateral, prolateral and dorsal, respectively; 6–7 — male prosoma, dorsal and dorso-lateral, respectively; 8 — male, lateral; 9 — female, dorsal; 10–11 — epigyne, ventral.

Рис. 3–11. Внешний вид и совокупительные органы *Oedothorax trilobatus*: 3–5 — пальпа самца, ретролатерально, пролатерально и сверху, соответсвенно; 6–7 — головогрудь самца, сверху и сверху-сбоку, соответственно; 8 — самец, сбоку; 9 — самка, сверху; 10–11 — эпигина, снизу.

Hypselistes semiflavus (L. Koch, 1879)

COMMENTS. This species is new to Kamchatka. It has a Siberio-Alaskan boreal range and is known from South Yamal southward to Tuva, eastward to Kamchatka, northward to the Lena River mouth [Marusik & Leech, 1993]. In the Nearctic it is known in the Yukon Territory [Marusik & Leech, 1993]. It is known in the adjacent Magadan Area, but not on the Kuril Islands, where it is replaced with its sibling, *H. basarukini* Marusik & Leech, 1993.

Lophomma vaccinii (Emerton, 1926)

COMMENTS. This species is new to Kamchatka. It has a Siberio-Nearctic range and is known in the adjacent Magadan Area and the North Kuril Islands [Marusik et al., 2007b].

Micrargus herbigradus (Blackwall, 1854)

COMMENTS. This species is new to the Kamchatka Peninsula. It has a Palaearctic range and is known in the adjacent North Kuril Islands [Mikhailov, 1997].

Oedothorax trilobatus (Banks, 1896)
Figs 3–11.

O. t.: Paquin & Dupérré, 2003: 115, f. 1190–1193 (♂♀).

COMMENTS. This species is new to the Palaearctic and its record from Kamchatka is the westernmost in the range. Earlier it was known exclusively from the Nearctic. In the Nearctic, *O. trilobatus* is reported from Alaska to Québec [Buckle et al., 2001]. Males of this species can be easily recognized because of the characteristic shape of the cephalic part of carapace and shape of the palp. The tibia has dorsal, bifid apophysis with prolateral arm smaller than retrolateral. In all other Erigoninae know to us, the retrolateral arm is larger than prolateral. The bulbus is also very specific. Females of *O. trilobatus* can be confused with several Palaearctic *Oedothorax* species. Because Palaearctic *Oedothorax* species are absent in easternmost Asia, there are no real difficulties with identification of *O. trilobatus.* Judging from the shape of male carapace and male palp (tibia and bulbus), this species is distantly related the type species of the genus *O. gibbosus* (Blackwall, 1841), and possibly should be treated as being in a separate genus. Occurrence of this species in other parts of Kamchatka and adjacent Northern Kuril islands is very likely.

Paratmeticus bipunctis (Bösenberg et Strand, 1906)

COMMENTS. Until recently this species and genus were unknown in Kamchatka. The species was reported from the peninsula by Marusik & Koponen [2010] and a new monotypic genus was erected for this species. *P. bipunctis* occurs from Kamchatka south to Japan. All records of this species, except those from Kamchatka, are on islands. The record from Koryakia is the most northern in the range.

Pelecopsis parallela (Wider, 1834)

COMMENTS. This species is new to Kamchatka. It has a trans-Palaearctic range. This is only record of this species outside the Palaearctic – Western Greenland [Marusik et al., 2007a].

Perregrinus deformis (Tanasevitch, 1982)

COMMENTS. This species is new to Kamchatka. It has a Siberio-Nearctic range and is known in the adjacent Magadan Area.

Praestigia kulczynskii Eskov, 1979 ?

COMMENTS. This species is new to Kamchatka. It has a Siberio-Nearctic range and is known in the adjacent Magadan Area and on Sakhalin Island [Marusik et al., 2008].

Sciastes dubius (Hackman, 1954)

COMMENTS. This species is new to Kamchatka. It has a northeast Siberian – Nearctic range. In Asia it is known only from the Magadan Area, where it was found in the coastal part only [Marusik, 2005]. In the Nearctic it is known from the Yukon Territory to Newfoundland [Buckle, 2001].

Semlicola lapponicus (Holm, 1939)

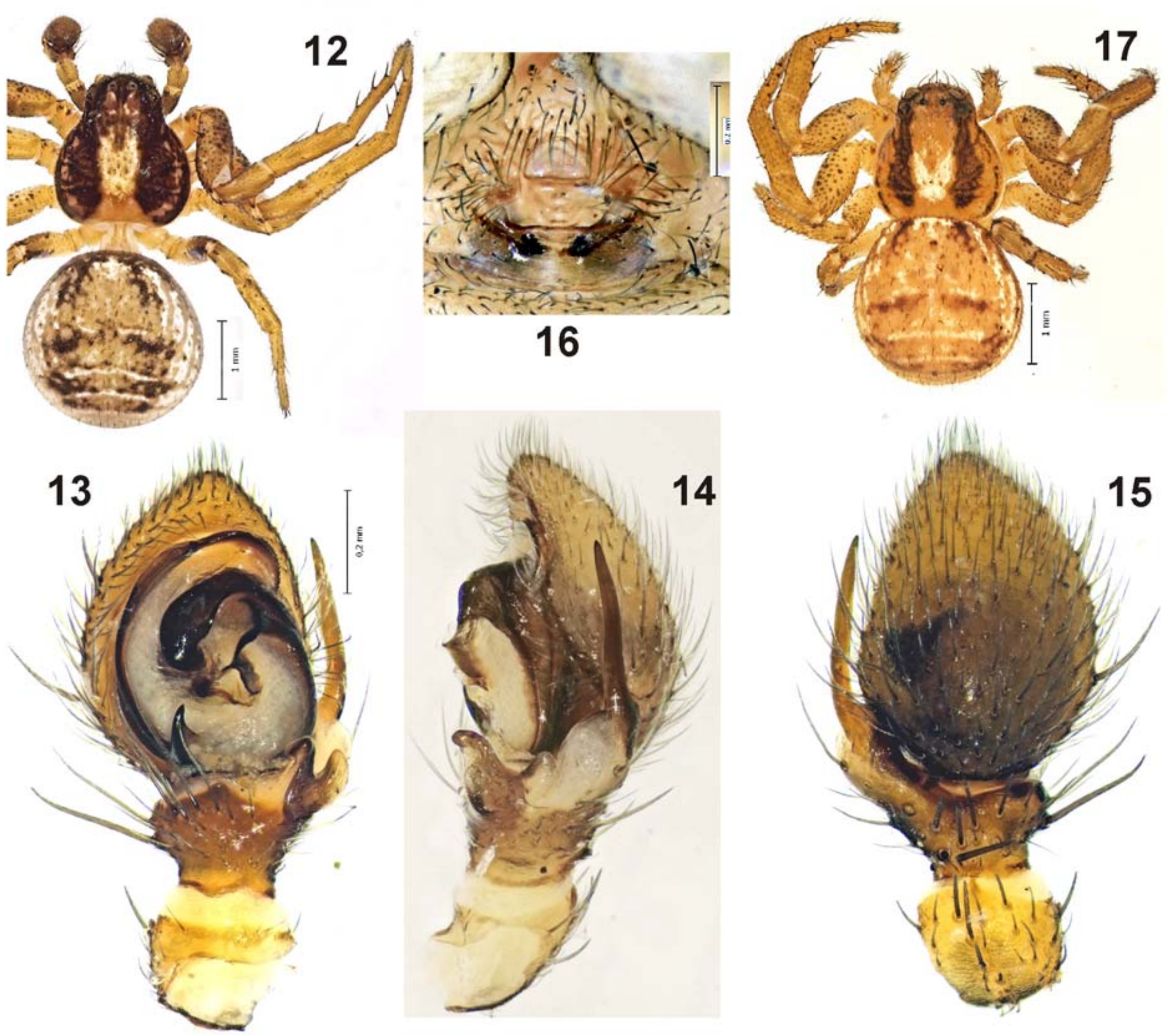
COMMENTS. This species is new to Kamchatka. It has a trans-Palaearctic-Alaskan hypoarctic range and occurs from northern Scandinavia eastward to Alaska [Saaristo & Eskov, 1996,southward to northern Cisokhotia [Marusik, 2005].

Tibioploides pacificus Eskov et Marusik, 1991

COMMENTS. This species is new to Kamchatka. It has an East Siberian boreal range [Eskov, 1994]. It was reported from the north part of Khabarovsk Province, upper Kolyma and central Sakhalin. The record from Koryakia is the easternmost in the range.

Walckenaeria kochi (O. Pickard-Cambridge, 1872)

COMMENTS. This species is new to Kamchatka. Its full range is unclear. The species is unknown between Evenkia (Middle Siberia) and Kamchatka [cf. Eskov, 1994]. Recently this species was reported from Simushir Island (Middle Kuril Islands) by Tanasevitch [2007]. On the other hand, this species seems present in the Nearctic under the name *W. fusciceps* Millidge, 1983. Buckle [cf. Buckle et al., 2001] consider these names as synonyms. Moreover *W. kochi* was reported from Québec [Paquin & Dupérré, 2003].



Figs 12–17. Habitus and copulatory organs of *Ozyptila gertschi*: 12, 17 — male and female habitus, dorsal; 13-15 — male palp, ventral, retrolateral and dorsal, respectively; 16 — epigyne, ventral.

Рис. 12–17. Внешний вид и совокупительные органы *Ozyptila gertschi*: 12, 17 — самец и самка, внешний вид, сверху; 13–15 — пальпа самца, снизу, ретролатерально и сверху; 16 — эпигина, снизу.

Walckenaeria nudipalpis (Westring, 1851)

COMMENTS. This species is new to Kamchatka. It has a trans-Palaearctic range and is known in adjacent Northern Sakhalin [Eskov, 1994] and North Kuril islands (personal data). The record from Koryakia is the northernmost in East Asia.

Walckenarianus aimakensis Wunderlich, 1995

COMMENTS. This species and this genus are new to Kamchatka. The genus is monotypic and was earlier known from Tuva to Magadan Area [Marusik et al., 2000]. The record from Tigil Village is the easternmost in the range.

LYCOSIDAE

Pirata aff. *canadensis* Dondale et Redner, 1981

COMMENTS. A single male found in Koryakia is very similar to the Nearctic *P. canadensis* and possibly conspecific with it. This matter will be considered in a revision of east Asian *Pirata* (Omelko et al., in preparation). The specimen from Tigil Village is also similar to *P. insularis* Emerton, 1885, but is smaller in size (same as in *P. canadensis*).

THERIDIIDAE

Canalidion montanum (Emerton, 1882)

COMMENTS. This species is new to Kamchatka. It has a Holarctic range and known in the adjacent Magadan Area in Coastal parts [Marusik, 2005].

Robertus lyrifer Holm, 1939

COMMENTS. This species is new to Kamchatka. It has a Palaearctic range and known in the adjacent Magadan Area and Chukotka [Marusik, 2005]. It seems that the record from Koryakia is the southernmost in the range.

Robertus aff. *lyrifer* Holm, 1939

COMMENTS. It is likely a new species. It is smaller in size in comparison to *R. lyrifer* and has slightly different copulatory organs. This species will be considered in a special taxonomic publication.

Robertus ungulatus Vogelsanger, 1944

COMMENTS. This species is new to Kamchatka. It has a trans-Palaearctic range and occurs from Central Europe to Koryakia, which is the northeasternmost locality in the range. This species has a disjunction between the Alps and Tuva, and Tuva and Far East [Marusik et al., 2000]. It is unknown in Magadan Area.

Rugathodes aurantius (Emerton, 1915)

COMMENTS. This species is new to Kamchatka. It has an almost circum-Holarctic range and occurs from Karelia to Kamchatka and across whole northern Nearctic. *R. aurantius* was reported in adjacent Magadan Area in coastal parts [Marusik, 2005] and in Sakhalin.

Thymoites bellissimus (L. Koch, 1879)

COMMENTS. This species in new to Kamchatka. It has a trans-Palaearctic range and is known from Fennoscandia to Chukotka [Marusik et al., 2000]. It is known in the adjacent Magadan Area.

THOMISIDAE

Ozyptila gertschi Kurata, 1944
Figs 12–17.

O. g.: Paquin & Dupérré, 2003: 230, f. 2570–2573 (♂♀).

COMMENTS. This species is new to Kamchatka and entire Asia. Earlier it was known from throughout Nearctic and in Europe from Germany to the Urals. It was never reported from Siberia or other Asian regions. It seems that it has disjunction between Ural and Kamchatka. Males of *O. gertschi* can be easily identified owing to a very long retrolateral tibial apophysis stretching upward, and shape of the tegulum with a claw-like outgrowth in the basal part on the prolateral side (Fig. 11) which is absent in all other *Ozyptila*. Females of this species are similar to several other species occurring in Far East, such as *O. sincera* Kulczyński, 1926, or *O. trux* (Blackwall, 1846). From these species it can be distinguished by the longer and wider scape of the epigyne (Fig. 14).

Xysticus britcheri Gertsch, 1934

COMMENTS. This species is new to Kamchatka. It has an almost circum-Holarctic range and is known from Archangelsk Area to Chukotka and throughout the Nearctic. *X. britcheri* is very common in adjacent Magadan Area.

Zora sp.

COMMENTS. So far, two species of *Zora, Z. spinimana* (Sundevall, 1832) and *Z. nemoralis* (Blackwall, 1861), are known in Kamchatka. We cannot place our specimens to either of these species because of the lack of adult males. It is likely that the record of *Z. nemoralis* in the peninsula refers to undescribed species.

Conclusions

Eighty-eight species of spiders and one harvestman species were found in western Koryakia in 2010. Only three species of spiders were previously reported from Koryaki All records, old and new, give a total number of spider species found in Koryakia as 91. Four of these records are of special biogeographical interest: *Asperthorax borealis, Oedothorax trilobatus*, *Walckenaeria kochi*, and *Ozyptila gertschi*. None of these species, except for *A. borealis*, was known in Asia. The nearest known locality of *A. borealis* is the environs of Khabarovsk, which is ca 1700 km from Tigil Village. *Oedothorax trilobatus* has never been reported in the Palaearctic, although it is widespread in the Nearctic. The latter two species have wide disjunction between the Urals and Kamchatka. In addition to *Oedothorax trilobatus,* there is one more species that seems to be new to the Palaearctic, *Pirata canadensis*.

To our mind, the real diversity of spiders in Koryakia may be close to 400 species. Some 400 species of spiders are reported from Northern Cisokhotia (from 138 to 163°E) and same number of species occurs in continental parts of Magadan Area [Marusik, 2005]. We are not providing biogeographical analysis of Koryakian spiders, mainly because the species found so far in the region represent only small (not larger than one quarter) fraction of the possible species diversity.

We suspect that only two species of harvestmen occur in Koryakia, like in Magadan Area: *Mitopus morio* (Fabricius, 1779) (found in Tigil Village) and *Homolophus arcticus* Banks, 1893. The latter species

Table 1. Material examined and spatial distribution of spiders collected near Tigil Village: 1) birch stands with *Pinus pumula* on south-west exposed slopes on low hills; 2) willow, and willow-alder stands on high river terrace and river valley; 3) boggy habitats and 4) varia.
Таблица 1. Исследованный материал и биотопическое распространение пауков в окрестностях п. Тигиль: 1) березняки с примесью кедрового стланика на пологом склоне ЮЗ экспозиции; 2) ивняки, ивняки с ольхой в долине реки; 3) заболоченные участки и 4) разное.

Species	1	2	3	4
Araneidae				
Araneus alsine (Walckenaer, 1802)	1♀			
Araneus marmoreus Clerck, 1757				8♀4♂1j
Araneus nordmanni (Thorell, 1870)*				1♀
Araneus yukon Levi, 1971*				1♂
Clubionidae				
Clubiona kulczynskii Lessert, 1905		1♀		
Clubiona latericia Kulczyński, 1926			2♀1j	
Gnaphosidae				
Haplodrassus soerenseni (Strand, 1900)?*		2j		
Linyphiidae				
Agyneta mollis (O. Pickard-Cambridge, 1871)*			7♀	
Agyneta aff *trifurcata* Hippa et Oksala, 1985			1♀	
Agyneta sp.	1♀	18♀		
Allomengea scopigera (Grube, 1859)[k]		2♂♀		
Anguliphantes karpinskii (O. Pickard-Cambridge, 1873)	1♀	2♀		
Aphileta misera (O. Pickard-Cambridge, 1882)*		1♀		
Asperthorax borealis Ono et Saito, 2001*	1♀			
Bathyphantes eumenis (L. Koch, 1879)[k]		83♀	5♀	
Bathyphantes gracilis (Blackwall, 1841)			1♀	
Bathyphantes pogonias Kulczyński, 1885[k]		1♂6♀	1♀	
Centromerus sylvaticus (Blackwall, 1841)		1♂6♀		
Ceraticellus bulbosus (Emerton, 1882)*			11♀	
Ceratinella sp. 1	4♀			
Ceratinella sp. 2		1♀	1♂1♀3j	
Dicymbium libidinosum (Kulczyński, 1926)		1♂12♀	4♀	
Diplocentria bidentata (Emerton, 1882)	1♀	3♂12♀	1♀	
Erigone atra Blackwall, 1833			1♀	
Estrandia grandaeva (Keyserling, 1886)		3♀		3♀
Flagelliphantes flagellifer (Tanasevitch, 1987)		1♀		
Gnathonarium sp.		1♀	2♂4♀	
Gnathonarium taczanowskii (O. Pickard-Cambridge, 1873)		2♀		
Hilaira canaliculata (Emerton, 1915)			12♀	
Hilaira devitata Eskov, 1987*		1♀		
Hilaira herniosa (Thorell, 1875)		3♀		
Hilaira sibirica Eskov, 1987*		19♀	1♀	
Hybauchenidium gibbosum (Soerensen, 1898)*		1♀		
Hylyphantes graminicola (Sundevall, 1830)		2♂♀		
Hypselistes sp.		4♀		
Hypselistes semiflavus (L. Koch, 1879)*			3♂5♀	
Improphantes complicatus (Emerton, 1882)		1♀		
Kaestneria anceps (Kulczyński, 1885)			1♂3♀1j	
Lophomma vaccinii (Emerton, 1926)*		2♀	1♂2♀	
Maso sundevalli (Westring, 1851)			1♂2♀	
Micrargus herbigradus (Blackwall, 1854)*		1♀		
Microlinyphia pusilla (Sundevall, 1830)			3♀1j	

Table 1 (continuing)
Таблица 1 (продолжение)

Species	1	2	3	4
Minyrioloides affine (Schenkel, 1930)			1♀	
Mughiphantes taczanowskii (O. Pickard-Cambridge, 1873)		3♀		
Oedothorax trilobatus (Banks, 1896) [a]			48♂♀	
Oreonetides vaginatus (Thorell, 1872)		2♀		
Oryphantes bipilis (Kulczyński, 1885)		1♂22♀	4♀	
Paratmeticus bipunctis (Bösenberg et Strand, 1906)	1♂	1♀		
Pelecopsis parallela (Wider, 1834)*			1♀	
Perregrinus deformis (Tanasevitch, 1982)*		2♂34♀		
Phlattothrata parva (Kulczyński, 1926)		1♀		
Porrhomma montanum Jackson, 1913		2♀		
Praestigia kulczynskii Eskov, 1979 ? *			2♀	
Sciastes dubius (Hackman, 1954)*		6♀		
Semlicola lapponicus (Holm, 1939)		1♂4♀		
Stemonyphantes sibiricus (Grube, 1861)	1♀2j			
Tenuiphantes alacris (Blackwall, 1853)		1♀		
Tenuiphantes mengei (Kulczyński, 1887)		1♀		
Tenuiphantes nigriventris (L. Koch, 1879)		2♂4♀		
Tibioploides pacificus Eskov et Marusik, 1991*		2♂2♀		
Tibioplus diversus (L. Koch, 1879)	1♀			
Tunagyna debilis (Banks, 1892)		1♂3♀		
Walckenaeria cuspidata Blackwall, 1833		3♂23♀		
Walckenaeria karpinskii (O. Pickard-Cambridge, 1873)	2♀	4♀		
Walckenaeria kochi (O. Pickard-Cambridge, 1872)[a]			1♂14♀	
Walckenaeria nudipalpis (Westring, 1851)*	3♀		1♀	
Walckenarianus aimakensis Wunderlich, 1995*			2♂7♀	
Liocranidae				
Agroeca ornata Banks, 1892	1♀1j	2♂		
Lycosidae				
Pardosa riparia (C.L. Koch, 1847)			2♀	
Pardosa tesquorum (Odenwall, 1901)				1♀
Pirata aff. *canadensis* Dondale et Redner, 1981*			1♂	
Philodromidae				
Tibellus maritimus (Menge, 1875)			1♀	
Salticidae				
Heliophanus camtschadalicus Kulczyński, 1885			1♀	
Sitticus caricis (Westring, 1861)			2♂1♀1j	
Tetragnathidae				
Pachygnatha clercki Sundevall, 1823	1j		2♂1♀10j	
Tetragnatha extensa (Linnaeus, 1758)			1j	1♀
Theridiidae				
Canalidion montanum (Emerton, 1882)*				1♂
Enoplognatha caricis (Fickert, 1876)		2j	2j	
Robertus lividus (Blackwall, 1836)	6♀	1♀		
Robertus lyrifer Holm, 1939*			1♀	
Robertus aff. lyrifer Holm, 1939*			2♂2♀	
Robertus ungulatus Vogelsanger, 1944*			2♂15♀1j	

Table 1 (continuing)
Таблица 1 (продолжение)

Species	1	2	3	4
Rugathodes aurantius (Emerton, 1915)*	2♂♀	3♂4♀3j		
Thymoites bellissimus (L. Koch, 1879)*		1(♂)	1(♂)	
Thomisidae				
Ozyptila gertschi Kurata, 1944[a]			2♂7♀8j	
Xysticus britcheri Gertsch, 1934*			2♂3j	
Zoridae				
Zora sp.	2♀3j	1♀2j		
Zygiellidae				
Parazygiella dispar (Kulczyński, 1885)				1j
Opiliones/Phalangiidae				
Mitopus morio (Farbricius, 1779)	1j	9j	5j	

Species new to fauna of Kamchatka are marked with asterisk (*), species previously known to Koryakia are marked with [k], and species new either to Asia or Palaearctic are marked by [a]. “J” means juvenile.

is known from Kamchatka Peninsula on the eastern part [Tschemeris, 2000]. There are three species of Opiliones in Kamchatka. The third species is *Mitopus mongolicus mongolicus* Roewer, 1912.

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